Maryland Historical Trust

Maryland Inventory of Historic Properties Number: H-37. MHT # HA-1982

Name: Forge Hill Rdover - Deer Creek

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST

Eligibility Recommended ___X___ Eligibility Not Recommended _____

Criteria: ____A ____B ____C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments:_____

_____

_____

Reviewer, OPS:__Anne E. Bruder_____ Date:__3 April 2001_____

Reviewer, NR Program:_Peter E. Kurtze_____ Date:___3 April 2001_____

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. HA-1982

SHA Bridge No. H-37 Bridge name Forge Hill Road over Deer Creek

LOCATION:
Street/Road name and number [facility carried] Forge Hill Road

City/town Dublin Vicinity X

County Harford

This bridge projects over: Road ____ Railway ____ Water X Land ____

Ownership: State ____ County X Municipal ____ Other ____

HISTORIC STATUS:
Is the bridge located within a designated historic district? Yes ____ No ____
National Register-listed district ____ National Register-determined-eligible district ____
Locally-designated district ____ Other ____

Name of district ____

BRIDGE TYPE:
Timber Bridge ____:
Beam Bridge ____ Truss -Covered ____ Trestle ____ Timber-And-Concrete ____

Stone Arch Bridge ____

Metal Truss Bridge ____

Movable Bridge ____:
Swing ____ Bascule Single Leaf ____ Bascule Multiple Leaf ____
Vertical Lift ____ Retractile ____ Pontoon ____

Metal Girder ____:
Rolled Girder ____ Rolled Girder Concrete Encased ____
Plate Girder ____ Plate Girder Concrete Encased ____

Metal Suspension ____

Metal Arch ____

Metal Cantilever ____

Concrete X:
Concrete Arch X Concrete Slab ____ Concrete Beam ____ Rigid Frame ____

Other ____ Type Name ____

DESCRIPTION:

Setting: Urban _____ **Small town** _____ **Rural** ___X___

Describe Setting:

Bridge H-37 carries Forge Hill Road over Deer Creek in Harford County. Forge Hill Road runs north-south and Deer Creek flows east. The bridge is located in the vicinity of Dublin, in Palmer State Park, and is surrounded by a wooded area.

Describe Superstructure and Substructure:

Bridge H-37 is a 3-span, 2-lane, concrete arch bridge. The bridge was constructed in 1925. The structure is 65.8 meters (216 feet) long and has a clear roadway width of 5.9 meters (19 feet 2 inches); there are no sidewalks. The out-to-out width is 6.3 meters (20 feet 10 inches). The superstructure consists of 3 arches which support transverse floor beams, a concrete deck and concrete parapets. The bridge is a closed spandrel rib concrete arch bridge. The concrete deck has a bituminous wearing surface. The structure has pierced concrete parapets and the roadway approaches have metal guardrails. The substructure consists of 2 concrete abutments and 2 concrete piers. The bridge is posted for 4 tons, and has a sufficiency rating of 31.9.

According to the 1995 inspection report, this structure was in poor to extremely poor condition with overall deterioration. The asphalt wearing surface has small patches and potholes. The concrete arches are spalled and have exposed reinforcement bars. The underside of the deck has deteriorated. The abutments are honeycombing and cracking. The piers are spalling, scaling, and eroding. Also, the concrete parapets are in poor condition. They are heavily spalled with exposed reinforcement bars.

Discuss Major Alterations:

There have been no major alterations to the bridge.

HISTORY:

WHEN was the bridge built: ___1925___
This date is: Actual ___X___ **Estimated** _____
Source of date: Plaque ____ **Design plans** ___ **County bridge files/inspection form** __X__
Other (specify): _____

WHY was the bridge built?

The bridge was constructed in response to the need for more efficient transportation network and increased load capacity.

WHO was the designer?

Harford County

WHO was the builder?

Harford County

WHY was the bridge altered?

N/A

Was this bridge built as part of an organized bridge-building campaign?

Unknown

SURVEYOR/HISTORIAN ANALYSIS:

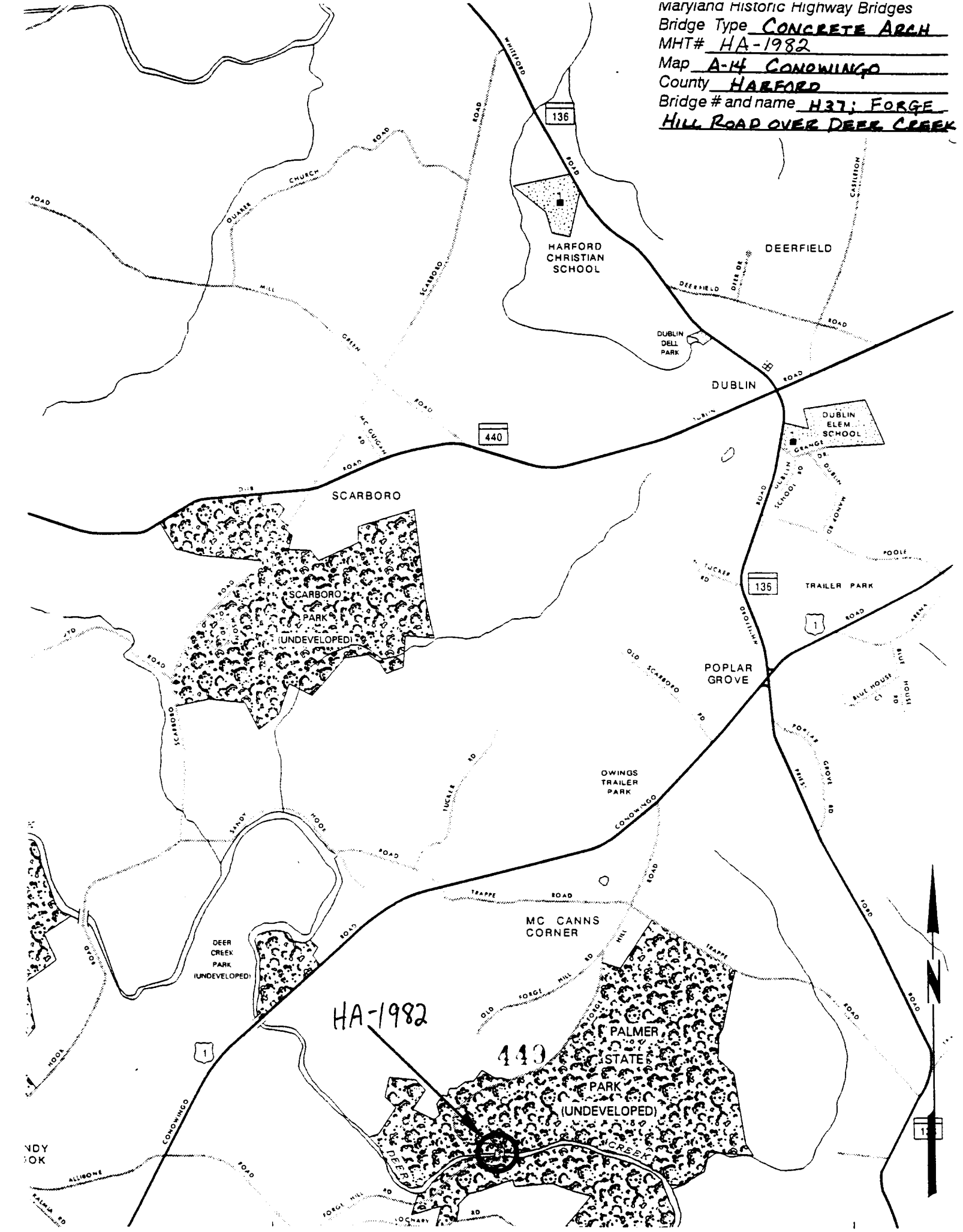
This bridge may have National Register significance for its association with:
A - Events _____ B- Person _____
C- Engineering/architectural character ____X____

The bridge is eligible for the National Register of Historic Places under Criterion C, as a significant example of concrete arch construction. The structure has a high degree of integrity and retains such character-defining elements of the type as pierced parapets, arch ribs and struts, closed spandrel walls, abutments, and piers.

Was the bridge constructed in response to significant events in Maryland or local history?

The advent of modern concrete technology fostered a renaissance of arch bridge construction in the United States. Reinforced concrete allowed the arch bridge to be constructed with much more ease than ever before and maintained the load-bearing capabilities of the form. As the structural advantages of reinforced concrete became apparent, the heavy, filled barrel of the arch was lightened into ribs. Spandrel walls were opened, to give a lighter appearance and to decrease dead load. This enabled the concrete arch to become flatter and multi-centered, with longer spans possible. Designers were no longer limited to the semicircular or segmental arch form of the stone arch bridge. The versatility of reinforced concrete permitted development of a variety of economical bridges for use on roads crossing small streams and rivers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920-1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic , with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of $3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund (with an equal sum from the counties) the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930.


Maryland Historic Highway Bridges
Bridge Type CONCRETE ARCH
MHT# HA-1982
Map A-14 CONOWINGO
County HARFORD
Bridge # and name H37; FORGE HILL ROAD OVER DEER CREEK
HARFORD CHRISTIAN SCHOOL
DEERFIELD
DUBLIN DELL PARK
DUBLIN
DUBLIN ELEM. SCHOOL
SCARBORO
SCARBORO PARK (UNDEVELOPED)
TRAILER PARK
POPLAR GROVE
OWINGS TRAILER PARK
MC CANNS CORNER
DEER CREEK PARK (UNDEVELOPED)
PALMER STATE PARK (UNDEVELOPED)
HA-1982
136
440
1
WHITEFORD ROAD
QUAKER CHURCH ROAD
MILL GREEN ROAD
SCARBORO ROAD
MC GUIGAN RD
DUBLIN ROAD
ULRICH SCHOOL RD
TUCKER RD
OLD SCARBORO RD
CONOWINGO ROAD
SANDY HOOK ROAD
TRAPPE ROAD
FORGE HILL RD
OLD FORGE HILL RD
ALLBONE ROAD
FORD ROAD
POPLAR GROVE RD
BLUE HOUSE RD
POOLE
N

HA 1982

HARFORD COUNTY, MD

JOHN TAKQUINO

23 JAN 1995

~~MARYLAND SHPO~~ SHA

STATE HIGHWAY BRIDGE NO. H37

VIEW LOOKING NORTH

ON FORGE HILL RD

1/4

HA - 982
HARFORD CO., MD
JOHN TARQUINIO
1/23/15
~~MARYLAND SHA~~ SHA
STATE HIGHWAY BRIDGE H37
VIEW LOOKING WEST FROM
THE NORTH END OF BRIDGE
2/4

HA - 1987
HARFORD COUNTY, MD
JOHN TARQUINIO
23 JAN 1995
~~MARYLAND SHPO~~ SHA
STATE HIGHWAY BRIDGE H37
VIEW LOOKING EAST
FROM SOUTH SIDE OF BRIDGE
3/9

#1 - 1982
HARFORD COUNTY, MD
JOHN TARQUINIO
23 JAN 1995
~~MARYLAND SHPO~~ SHA
STATE HIGHWAY ADMIN BRIDGE #37
VIEW LOOKING SOUTH. ON
FORGE HILL RD
4/4

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

Property/District Name: Forge Hill Road Bridge over Deer Creek (H-37) Survey Number: HA-1982

Project: Bridge Rehabilitation Agency: FHWA/Harford County DPW

Site visit by MHT Staff: X no ___ yes Name _____ Date _____

Eligibility recommended X Eligibility **not** recommended ____

Criteria: ___A ___B _X_C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G ___None

Justification for decision: (Use continuation sheet if necessary and attach map)

The Forge Hill Road Bridge over Deer Creek, Harford County, Maryland is a concrete arch bridge which was constructed based on designs by the noted Architect and Engineer, Albert Kahn. This bridge was determined to be eligible by the Interagency Historic Bridge Committee based on information which stated that the bridge was built in 1925. However, Harford County indicates that the bridge was actually designed in 1911 as evidenced by its photograph and short blurb in the December 30, 1911 *Engineering Record*. Layton F. Smith designed the bridge, incorporating Kahn's system of reinforcement. The County proposes to replace the parapet, however the replacement will be in-kind use of materials and form. Therfore, the bridge remains eligible for inclusion in the National Register of Historic Places under Criterion C (Engineering).

Documentation on the property/district is presented in: Project Review and Compliance files

Prepared by: Julio Espinoza, County Engineer

Anne E. Bruder — October 25, 1999
Reviewer, Office of Preservation Services — Date

NR program concurrence: X yes ___ no ___ not applicable

Reviewer, NR program — 11/1/99
Date

Survey No. HA-1982

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

_____ Eastern Shore	(all Eastern Shore counties, and Cecil)
_____ Western Shore	(Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
__X__ Piedmont	(Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
_____ Western Maryland	(Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

_____ Paleo-Indian	10000-7500 B.C.
_____ Early Archaic	7500-6000 B.C.
_____ Middle Archaic	6000-4000 B.C.
_____ Late Archaic	4000-2000 B.C.
_____ Early Woodland	2000-500 B.C.
_____ Middle Woodland	500 B.C. - A.D. 900
_____ Late Woodland/Archaic	A.D. 900-1600
_____ Contact and Settlement	A.D. 1570-1750
_____ Rural Agrarian Intensification	A.D. 1680-1815
_____ Agricultural-Industrial Transition	A.D. 1815-1870
__X__ Industrial/Urban Dominance	A.D. 1870-1930
_____ Modern Period	A.D. 1930-Present
_____ Unknown Period (___ prehistoric ___ historic)	

III. Prehistoric Period Themes:

_____ Subsistence
_____ Settlement
_____ Political
_____ Demographic
_____ Religion
_____ Technology
_____ Environmental Adaptation

IV. Historic Period Themes:

_____ Agriculture
_____ Architecture, Landscape Architecture, and Community Planning
_____ Economic (Commercial and Industrial)
__X___ Government/Law
_____ Military
_____ Religion
_____ Social/Educational/Cultural
__X__ Transportation

V. Resource Type:

Category: Structure
Historic Environment: Rural
Historic Function(s) and Use(s): Transportation – Creek Crossing
Known Design Source: Layton F. Smith

HARFORD COUNTY

HA-1980

HARFORD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WOI

SHA CONTRACT NO.

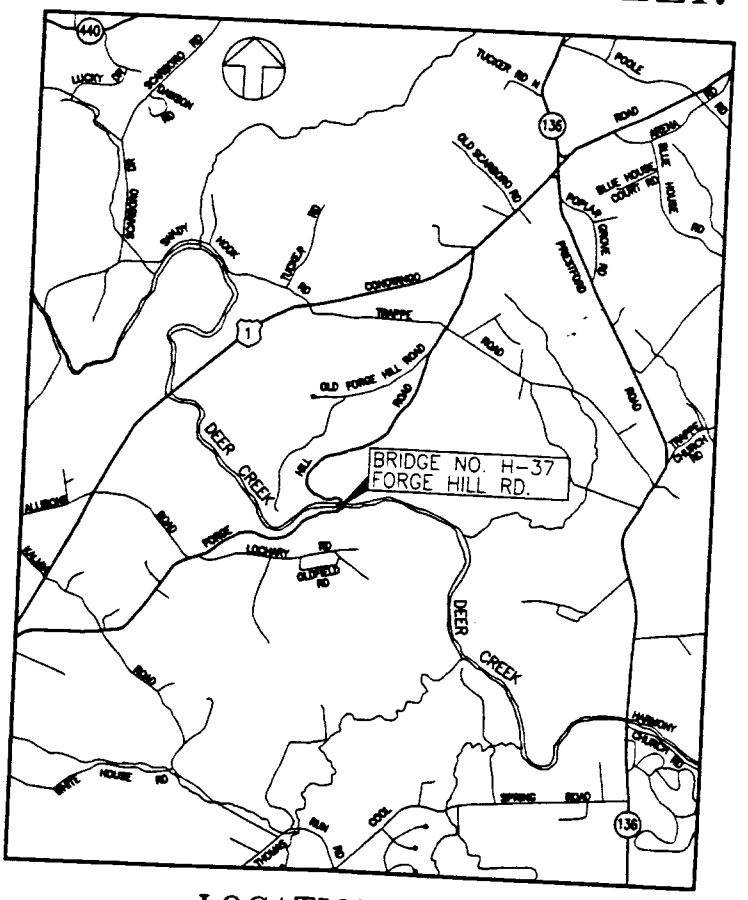
FEDERAL AID PROJECT NO.

HARFORD COUNTY BID NO. ..-..

REHABILITATION OF BRIDGE NO. H-3

FORGE HILL ROAD OVER DEER CREEI

EETS



LOCATION MAP

SCALE: 1" = 2,000'

LENGTH OF THE PROJECT = 400.00 FEET

RGE HILL ROAD

YEAR	DESIGN YEAR	REMARKS
95)		
OAD		

HA-1982

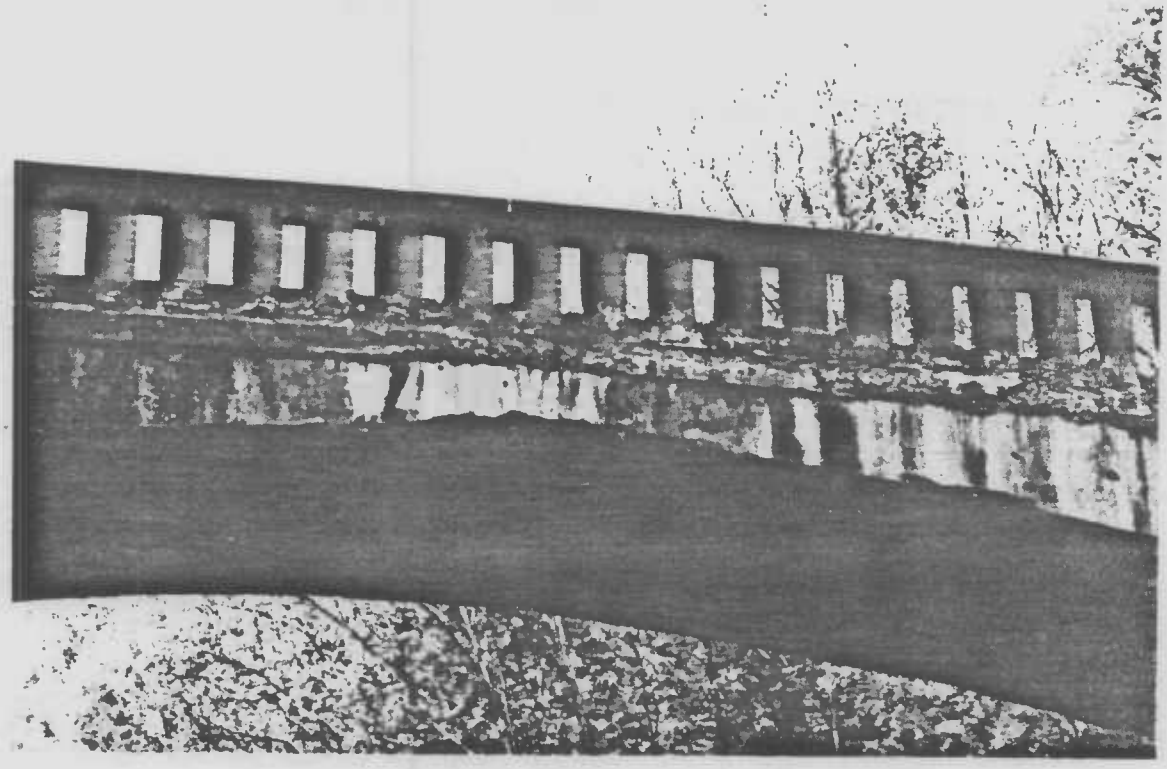
BRIDGE NO. H-37
FORGE HILL ROAD OVER DEER CREEK

PHOTOGRAPH NO. 1
LOOKING NORTH

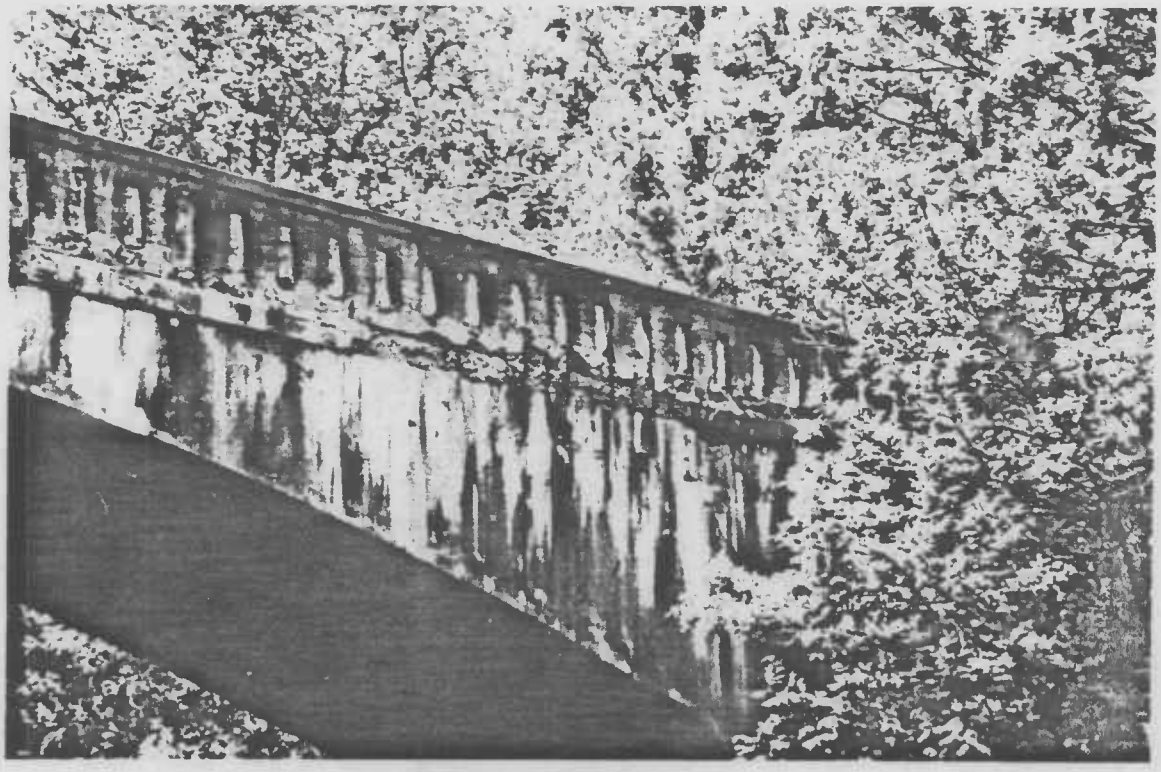
PHOTOGRAPH NO. 2
LOOKING SOUTH

HA-1982

BRIDGE NO. H-37
FORGE HILL ROAD OVER DEER CREEK



PHOTOGRAPH NO. 15
DETERIORATED CONCRETE ARCH (EAST SIDE)



PHOTOGRAPH NO. 16
DETERIORATED CONCRETE ARCH (EAST SIDE)

MARYLAND INVENTORY OF HISTORIC PROPERTIES

Survey No. HA-1982

Magi No.

DOE __yes __no

Maryland Historical Trust State Historic Sites Inventory Form

1. Name (indicate preferred name)

historic Forge Hill Road Bridge (preferred)

and/or common Bridge ~~H-37~~

2. Location

street & number 3000 Block Forge Hill Road ___ not for publication

city, town Dublin —X— vicinity of congressional district ~~2~~ 1st. (2)

state Marykand county Harford

3. Classification

Category	Ownership	Status	Present Use	
___ district	X public	___ occupied	___ agriculture	___ museum
___ building(s)	___ private	___ unoccupied	___ commercial	___ park
X structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	___ yes: restricted	___ government	___ scientific
	___ being considered	X yes: unrestricted	___ industrial	X transportation
	___ not applicable	___ no	___ military	___ other:

4. Owner of Property (give names and mailing addresses of all owners)

name Harford COunty Government Public Works Dept.

street & number 200 South Bond Street telephone no.: 410-638-3285

city, town Bel Air state and zip code MD 21014

5. Location of Legal Description

courthouse, registry of deeds, etc. liber

street & number folio

city, town state

6. Representation in Existing Historical Surveys

title

date ___ federal ___ state ___ county ___ local

pository for survey records

city, town state

7. Description

Survey No.

Condition		Check one	Check one
___ excellent	_X_ deteriorated	_X_ unaltered	_X_ original site
___ good	___ ruins	___ altered	___ moved date of move _____
___ fair	___ unexposed		

Prepare both a summary paragraph and a general description of the resource and its various elements as it exists today.

SEE ATTACHED SEPARATE SHEETS

8. Significance

Survey No. HA 1982

Period	Areas of Significance—Check and justify below			
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science
1500–1599	___ agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	___ architecture	___ education	___ military	___ social/ humanitarian
___ 1700–1799	___ art	___ engineering	___ music	___ theater
___ 1800–1899	___ commerce	___ exploration/settlement	___ philosophy	___ transportation
X 1900–	___ communications	___ industry	___ politics/government	___ other (specify)
		___ invention		

Specific dates ~~1911~~ **Builder/Architect** ~~State Roads Commission; Layton Smith~~ designer

check: Applicable Criteria: __A __B X C __D
and/or
Applicable Exception: __A __B __C __D __E __F __G

Level of Significance: __national __state X local

Prepare both a summary paragraph of significance and a general statement of history and support.

SEE ATTACHED SHEETS

9. Major Bibliographical References

Survey No. HA-1982

Engineering Record December 30,1911

Reports of the State Roads Commission 1911

10. Geographical Data

Acreage of nominated property _____

Quadrangle name ~~Bel Air Quad~~ **Quadrangle scale** ~~1:24000~~

UTM References do NOT complete UTM references

		Zone	Easting	Northing
A				
B				
C				
D				
E				
F				
G				
H				

Verbal boundary description and justification

The boundaries consist of the bridge itself.

List all states and counties for properties overlapping state or county boundaries

state	code	county	code
state	code	county	code

11. Form Prepared By

name/title Christopher Weeks

organization Preservation Planner, Harford County **date** January 19, 2000

street & number 220 South Main Street **telephone** 410-638-3103

city or town Bel Air, **state** MD 21014

The Maryland Historic Sites Inventory was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
Shaw House
21 State Circle
Annapolis, Maryland 21401
(301) 269-2438

MARYLAND HISTORICAL TRUST
DHCP/DHCD
100 COMMUNITY PLACE
CROWNSVILLE, MD 21032-2023
514-7600

PS-2746

HA-1982
Forge Hill Road Bridge
Harford County
7.1

Summary
Bridge H-37 is a three-span, two-lane reinforced concrete bridge that carries Forge Hill Road over Deer Creek in north-central Harford County, Maryland. The bridge is located in the heavily forested Palmer State Park near the hamlet of Dublin; it is cited as a contributing element of the Lower Deer Creek Valley National Register Historic District. Forge Hill Road generally runs north-south; Deer Creek flows easterly from Baltimore County to the Susquehanna River.

General Description
The following is from the *Engineering Record* of December 30, 1911 (Vol. 64, No. 27), pp. 761-62:

"Recently completed by the State Roads Commission," the Forge Hill Road Bridge's "main arch has a clear span of 100 ft. with a rise of 11 ft. and the side arches have half spans of 45 ft. with a rise of 8 ft. 9 ins. The total length of the bridge, between abutments, is 210 ft. and wing walls at either abutment increase the overall distance to 248 ft. The roadway in the clear is 18 ft. 4 in. The Kahn system of reinforcement is used throughout the structure. A clause in the specifications required individual bars and suggested that shear members be rigidly attached to main tension members.

"The framing comprises four individual piers, with mass concrete footings, supporting the two arch ribs. These ribs support transverse floorbeams and on these the bridge floor is laid.

"The footings for the four piers are carried to solid rock and brought to a uniform elevation of 123 ft. Eight cup-bar dowels 4 ft. long are anchored 2 ft. in these footings...and, with eight 1 ¾ x 2 ¾ -in. trussed bars lashed to them, provide anchorage and reinforcement to the piers. The piers, 6 ft. 8 in. by 14 ft. at the base, are batterd to 2 x 10-ft. at the springing line, El. 137, to conform to the arch rib section. At the springing line they are tied transversely by a concrete beam of 2 x 2-ft. section, reinforced at the top and bottom by two 1 ½ x 2 ¼- in. trussed bars, 20 ft. long, spaced 12 in. on centers. The two arched ribs, parabolic in section at the intrados and horizontal at the extrados, have a crown thickness of 3 ft. and a width of 2 ft....

"The floorbeams have a clear span of 16 ft. 4 in., a thickness of 24 in. at the ends and 27 in. at the center and are 1 ft. wide. They are reinforced with two 1 ¾ x 2 ¾-in. trussed bars 18 ft. 3 in. long....The floor slab has a clear span of 9 ft. and a depth of 8 ½ in.....The curb 10 x 24 in. carries a reinforced concrete railing of simple open panel design....To provide for drainage, the bridge is built on a rising grade from either end of 1.9 per cent., and 2-in. drainage spouts are placed at either curb 25 ft. apart." The span

boasts pierced concrete parapets which might be viewed as guard rails that in effect appear to be decorative balustrades.

The *Engineering Record* notes that, "According to Mr. Layton F. Smith, the designing engineer, this bridge was designed for the ribs to act as cantilevers 110 ft. long, with the middle 10 ft. resting on the piers....By considering the ribs as cantilevers, the load is transmitted vertically to the foundations.

"There were three different mixtures of concrete used in construction. For beams and columns the proportions were 1:2:4; for floor plates and footings 1:2 1/2: 5; and for slabs under 3 in., one part of cement to three parts of fine aggregate were used. Broken stone was used in all cases." Once the abutments and piers were in place, "the rest of the concrete to the under side of the hand rail was poured continuously for 88 hours."

The bridge was designed by Layton Smith, a Baltimore-based consulting engineer, under the general supervision of W.W. Crosby, chief engineer of the State Roads Commission. E. Ward Brown served as general contractor, with Daniel Morgan superintendent.

A 1995 inspection report deemed the bridge in poor condition with overall deterioration. The roadway has small patches and potholes. The concrete arches are spalled and have exposed reinforcement bars. The underside of the deck has deteriorated. The abutments are honeycombing and cracking. The piers are spalling, scaling, and eroding. The concrete parapets are also spalling with exposed reinforcement bars.

HA-1982
Forge Hill Road Bridge
Harford County
8.1

Summary
The Forge Hill Road Bridge, completed in 1911, stands as one of the newly formed State Roads Commission's first efforts to improve and upgrade Maryland's highway network. It is also an early (and fine) example of reinforced concrete construction.

History and Support
The Forge Hill Road Bridge was built as part of the State Roads Commission's ongoing effort to provide a more efficient transportation network. Specifically, it was part of a seven-year program that began with the Commission's establishment in 1908 and ended in 1915.

This burst of activity coincided with the advent of modern concrete technology. The first known concrete houses in the then-booming Baltimore, located in Roland Park, date to 1905, just six years before the Forge Hill Bridge spanned Deer Creek in a remote stretch of Harford County.

Reinforced concrete allowed the arch bridge to be constructed with much more ease than before and maintained the load-bearing capacity of the form. As the structural advantages of reinforced concrete became clear, overall bridge design was lightened. Its arch design is significant: the era the bridge was built coincides with an era in which concrete bridge design was increasingly standardized, with beam and slab constituting 65% of all construction. Yet as consultant P.A.C. Spero has noted, "it appears that the arch was selected when aesthetic as well as other site conditions were considered." It is thus interesting that the Commission chose the more aesthetically pleasing arch design for this somewhat remote span.

The "new" Forge Hill Road Bridge was built to replace an earlier structure a few yards upstream, which required that the road be relocated and realigned. And in addition to its aesthetic appeal, the new Forge Hill Bridge offered practical advantages over the earlier span. As the 1911 State Roads Commission reports notes, "this [new bridge] is one of the greatest improvements your Board has completed. The grades on the old crossing of Deer Creek were as high as 16 per cent. And the old road was utterly impassable for considerable periods each year. The new road has no grade over 7 percent."

Moreover, "the new bridge is a fine example of permanent work. It is of reinforced concrete of unusual design and its cost ($10,000) was only a few hundred dollars in excess of the usual type of steel and wood structure of equal strength. Considering its freedom from maintenance charges, its cost over a period of years should be less than that of a steel structure."

HA-1982
Forge Hill Road Bridge
Harford County
8.2

The bridge is cited as a contributing element to the Lower Deer Creek Valley National Register Historic District.

MARYLAND HISTORICAL TRUST

Eligibility Recommended __X____ Eligibility Not Recommended _____

Criteria: __X__A ____B __X__C ____D Considerations: ___A ___B ___C ___D ___E ___F ___G __None

Comments: The bridge contributes to the Lower Deer Creek Valley Historic District, and is also individually eligible as an engineering example (Criteria A and C). It was determined to be eligible for the National Register of Historic Places by the Interagency Historic Bridge Committee and the Trust's concurs with that determination.

Reviewer, OPS: _____ Date: 5/15/00

Reviewer, NR Program: _____ Date: 5/17/00

HA-1772

MARYLAND COMPREHENSIVE STATE HISTORIC PRESERVATION PLAN
STATEWIDE HISTORIC CONTEXTS

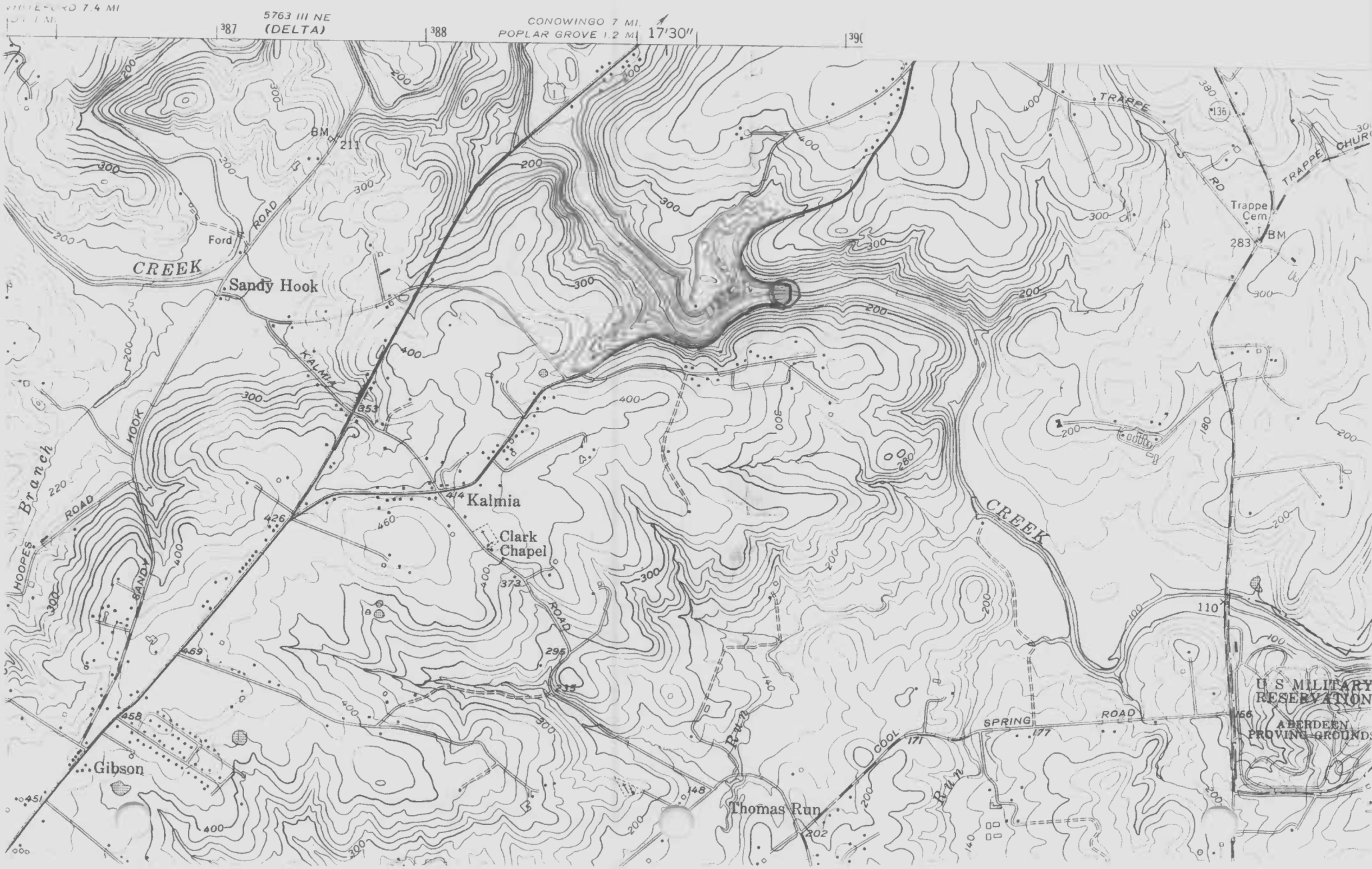
I. Geographic Organization
Piedmont

II. Chronological/Development Period
Industrial/Urban Dominance

III. Historic Period Theme
Transportation

IV. Resource Type
Structure
Rural Environment
Historic Function: Bridge
Design Source: Layton Smith, engineer

HA-1982
Forge Hill Road Bridge
Dublin vic.
Harford County
Bel Air Quad



HA - 1932
Forge Hill Road Bridge
Harford Co, Md
Christopher Weeks
Jan. 2000
Harford Co Dept of Public Works
looking northeast
1 of 6

HA-1982

Forge Hill Road Bridge

Harford County, MD

Chris Weeks

Jan. 2000

Harford Co Dept Public Works

Looking North

2/6

HA-1982
Forge Hill Road Bridge
Harford County, MD
Chris Weeks
Jan. 2000
Harford Co. Dept. Public Works
east side of bridge

3/6

HA-1492
Forge Hill Road Bridge
Harford Co, MD
Chris Weeks
Jan. 2000
Harford Co Dept. Public Works
Parapet detail (deflection)
4/6

HA - 1982

Forge Hill Road Bridge

Harford Co., MD

Chain Locks

Jan. 2000

Harford Co Dept. Public Works

S/b

HA-1932

Forge Hill Road Bridge

Harford Co, MD

Chris Weeks

Jan. 2000

Harford Co Dept Public Works

Looking south

6/6